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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/820,683	04/07/2004	Osamu Yamada	S008-P04073US	8530

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EXAMINER
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LAMB, CHRISTOPHER RAY

ART UNIT	PAPER NUMBER
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2627

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

**Application No.**

10/820,683

**Applicant(s)**

YAMADA ET AL.

**Examiner**

Christopher R. Lamb

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 02 March 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 15-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 15-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>3/2/07</u> . | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Claim Objections***

1. Claim 16 is objected to because of the following informalities: in line 2, "to reproducing process" should be "to the reproducing process." Appropriate correction is required.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 15-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kuroiwa (US 6,246,650) in view of McKernan (US 2001/0046196 A1).

Regarding claim 15:

Kuroiwa discloses:

An optical disc playback apparatus that rotates an optical disc at a predetermined rotational speed, irradiates the optical disc with laser light, and performs a reproducing process based on laser light reflected from the optical disc (Fig. 1), the optical disc playback apparatus comprising:

a jitter amount detector that detects a jitter amount based on a signal obtained from the reflected laser light (Fig. 12; column 16, lines 5-15);

an error rate detector that detects an error rate amount based on a signal obtained from the reflected laser light (column 11, lines 10-20); and

a rotational speed adjustment circuit that adjusts the rotational speed based on the jitter amount prior to the reproducing process (column 6, lines 5-15).

Kuroiwa does not disclose:

wherein the rotational speed adjustment circuit "adjusts the rotational speed based on the error rate amount during the reproducing process, after having adjusted the rotation speed based on the jitter amount."

McKernan discloses:

wherein a rotational speed adjustment circuit adjusts the rotational speed based on the error rate amount during the reproducing process (paragraphs 29-30).

Thus it would have been obvious to one of ordinary skill in the art at the time of the invention to include in Kuroiwa wherein the rotational speed adjustment circuit adjusts the rotational speed based on the error rate amount during the reproducing process (as taught by McKernan), after having adjusted the rotation speed based on the jitter amount (Kuroiwa already discloses adjusting the rotation speed based on the jitter before the reproducing process, so McKernan's step must come after it).

The motivation is as follows: Kuroiwa monitors the error rate and attempts a retry operation if it is too high (Kuroiwa: column 11, lines 45-60). McKernan discusses this very operation (paragraph 10) and goes to disclose a better method (paragraphs 11-13; paragraph 30). Thus the motivation is provided directly by McKernan: McKernan discloses that this method is inexpensive and avoids failures.

Regarding claim 16:

Kuroiwa in view of McKernan discloses wherein:

prior to the reproducing process, the rotational speed adjustment circuit:

adjusts the rotational speed to a first speed when the jitter amount is above a first threshold value (Kuroiwa Fig. 13: steps F406, F407. In the figure it indicates that the maximum speed is selected. The apparatus operates at the maximum speed at the start of reproduction, as in column 14, lines 35-45: in the example there the maximum speed is the x2 speed), and

adjusts the rotational speed to a second speed higher than the first speed when the jitter amount is not above the threshold value (Kuroiwa Fig. 13: steps F406, F408, as discussed for the previous element).

Regarding claim 17:

Kuroiwa in view of McKernan discloses wherein:

during the reproducing process, the rotational speed adjustment circuit:

adjusts the rotational speed to the first speed regardless of the error rate amount if the jitter amount prior to the reproducing process is above the first threshold value; and

adjusts the rotational speed based on the error rate amount if the jitter amount prior to the reproducing process is not above the first threshold value.

The explanation is as follows:

Kuroiwa only discloses two possible maximum speeds: x1.5 and x2. Kuroiwa uses the jitter to decide on a maximum speed before reproduction is started.

McKernan was relied upon to teach reducing the speed if the error rate is too large. However, if the lower speed has already been selected in the jitter measurement

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operation, there isn't a lower speed available to reduce the speed to. Therefore the rotational speed adjustment circuit must adjust the rotational speed to the first speed regardless of the error rate amount if the jitter amount prior to the reproducing process is above the first threshold value: in other words, if the lower speed has already been selected, the error rate operation has nothing further to contribute.

Conversely, if the jitter amount prior to the reproducing process is not above the first threshold value, the apparatus of Kuroiwa in view of McKernan has selected the higher speed, and there is room to reduce the speed if the error rate is high (thus it adjusts the rotational speed based on the error rate amount if the jitter amount prior to the reproducing process is not above a first threshold value).

Regarding claim 18:

Kuroiwa in view of McKernan discloses wherein:

during the reproducing process, the rotational speed adjustment circuit:

adjusts the rotational speed to the first speed if the error rate amount is above a second threshold value (the first speed is the slower speed: McKernan taught reducing the speed if the error rate is high, as discussed above), and

adjusts the rotational speed to the second speed if the error rate amount is not above the second threshold value (the second speed is the higher speed: McKernan indicates in paragraph 30 that if the error rate is below the threshold the speed is left at the higher speed).

Regarding claim 19:

Kuroiwa in view of McKernan discloses a microcomputer for use in an optical disc playback apparatus, the microcomputer comprising the rotational speed adjustment circuit of claim 15 (all individual elements of the microcomputer have already been discussed with regards to that claim).

Regarding claims 20-23:

These are method claims corresponding to the earlier apparatus claims and are met when the apparatus operates.

### ***Response to Arguments***

4. Applicant's arguments filed February 20<sup>th</sup>, 2007 have been fully considered but they are not persuasive.

Applicant canceled all the previous claims and filed new claims. However, because the previous claims were rejected as unpatentable over Kuroiwa in view of McKernan, Applicant has argued with that rejection.

First, Applicant argues that "neither Kuroiwa or McKernan teach or suggest adjusting the rotational speed based on jitter level prior to the reproducing process and subsequently adjusting the rotational speed based on error rate level during the reproducing process."

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Kuroiwa discloses adjusting the rotational speed based on jitter level prior to the reproducing process; McKernan taught adjusting the rotational speed based on error rate level during the reproducing process; it is their combination that has been used to reject the claims.

Second, Applicant argues that neither Kuroiwa or McKernan provide any teaching or suggestion to combine the references: Applicant argues that each separately teach complete speed control methods, and that they are each so complete there is no reason to combine them.

However, as noted in the rejection above, Kuroiwa teaches monitoring the error rate in order to initialize a re-reading process if necessary. McKernan specifically criticizes this method, and indicates that another method – monitoring the error rate in order to reduce the speed if necessary – is superior. Therefore, McKernan directly provides the necessary motivation to combine the references.

### ***Conclusion***

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of



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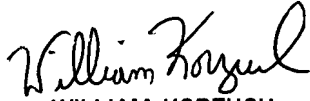
the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher R. Lamb whose telephone number is (571) 272-5264. The examiner can normally be reached on 9:00 AM to 6:30 PM Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Korzuch can be reached on (571) 272-7589. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

CRL 5/1/07

  
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